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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/790,496  
Filing Date: March 01, 2004  
Appellant(s): IWAMURA, RYUICHI

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JOHN L. ROGITZ  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5/20/2009 appealing from the Office action mailed 5/11/2009 and in response to remand from BPAI mailed 4/12/2010.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**NEW GROUND(S) OF REJECTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim(s) **18-25** is/are rejected under 35 USC § 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim(s) recites/recite the following means (or step) plus function limitation: means for, when no component-preferred path is indicated, communicating data over at least one of the paths based on at least one of: a bandwidth capability, an occupancy ratio.

This limitation invokes 35 USC § 112, ¶ 6 because it meets the 3-prong analysis set forth in MPEP 2181 as it recites the phrase “means for” or “step for” (or appellant identifies the limitation as a means (or step) plus function limitation in the appeal brief) and the phrase is modified by functional language and it is not modified by sufficient structure, material, or acts for performing the recited function. Also see *Altiris Inc. v. Semantec Corp.*, 318 F.3d 1363, 1375 (Fed. Cir. 2003). 35 USC § 112, ¶ 6, requires such claim to be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. “If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section § 112.” *In*

*re Donaldson Co.*, 16 F.3d 1189, 1195, 29 USPQ 1845, 1850 (Fed. Cir. 1994)(in banc.). For a computer-implemented means-plus-function claim limitation that invokes 35 USC § 112, ¶ 6, the corresponding structure is required to be more than simply a general purpose computer. *Aristocrat Technologies, Inc. v. International Game Technology*, 521 F.3d 1328, 1333, 86 USPQ2d 1235, 1239-40 (Fed. Cir. 2008). The corresponding structure for a computer-implemented function must include the algorithm as well as the general purpose computer. *WMS Gaming, Inc. v. International Game Technology*, 184 F.3d 1339, 51 USPQ2d 1385 (Fed. Cir. 1999). The written description must at least disclose the algorithm that transforms the general purpose microprocessor to a special purpose computer programmed to perform the claimed function. *Aristocrat*, 521 F.3d at 1338, 86 USPQ2d at 1242.

In the instant application, the following portions of the specification and drawings may appear to describe the corresponding structure for performing the claimed function: Fig. 7, Spec. 12 (last paragraph); 13 :9-16.)

However, the specification and drawings do not disclose sufficient corresponding structure, material or acts for performing the claimed function. The Specification does not disclose an algorithm to determine the bandwidth capability or the occupancy ratio. (The occupancy ratio is based on the currently used bandwidth and total available bandwidth) While the Specification at 13 indicates that the current transmitter bandwidth can be used for the occupancy ratio, the Specification does not disclose how that current transmitter bandwidth is determined. The Specification also does not state

clearly that the bandwidth capability decision is based on currently used bandwidth. For example, the Specification does not say if or how the bandwidth is measured, or if some signal from a component indicates its bandwidth, and/or what criteria are used to determine the communication data path. (While the Specification at page 13 mentions testing, the Specification does not describe the test. Also, Figure 4 shows that testing (block 404) and determining bandwidth (405) are separate.)

Note: the Spec. at page 16 states that only claims employing "means for" language invoke § 112, ¶ 6 .

#### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

#### **(8) Evidence Relied Upon**

2003/0140343

*FALVO* et al.

07-2003

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over

**FALVO** et al. (US 2003/0140343), hereinafter **FALVO**.

Regarding claim 1, **FALVO** discloses a home entertainment system, comprising:

at least one server configured for both wired and wireless communication (the combination of digital set top box/cable modem 335 and WLAN bridge 330 function as the server for display devices 310, 315, 320, 325, see figure 3); and

at least one component configured for communicating with the server along a wired path or configured for communicating with the server along a wireless path (the display devices 320, 325 are connectable to WLAN bridge 330 via either twisted pair connection or via RF link, see figure 3, and paragraph 0048), the server and/or the component determining with path to use for communication based on the component preference (by default: display devices 325, 320 prefer twisted pair path, while display device 310, 315 prefer RF link, see figure 3).

**FALVO** fails to explicitly disclose that each of the display devices 310, 315, 320, 325 or TV are configured to communicate with the server via both wired path and RF path at any time.

**FALVO**, however, discloses that display devices 320, 325 are connected to WLAN 330 via twisted pair and the display devices are also support both HomeRF and 802.11b wireless protocol (see paragraph 0048).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to connect each devices with both HomeRF and twisted pair at any time in order to maintain reliable connection with server at all time while also providing mobility.

Regarding claim 2, **FALVO** discloses a respective address is associated with each path over which the component communicates (see paragraph 0079).

Regarding claim 3, **FALVO** discloses the addresses are IP addresses (see paragraph 0079).

Regarding claim 4, **FALVO** discloses the component is selected from the group of components consisting of: televisions and portable computers (see figure 3).

Regarding claim 5, **FALVO** discloses the component is a TV (see figure 3).

Regarding claim 6, **FALVO** discloses at least one of: the server, and component, determines which path to use for communication based at least in part on a component preference (as show in figure 3, display devices are connectable to WLAN Bridge 330 via wireless or RF link or twisted pair and communicating based on each preferred connection).



Regarding claim 9, **FALVO** discloses a method for communicating a home network, comprising:

determining that both a wired and a wireless path exist between the components (as show in figure 3, display devices 320, and 325 are connectable to WLAN Bridge 330 via twisted pair and , see paragraph 0048);

determining whether at least one of the components prefers a particular path and if so, communicating data over that path (by default: display devices 325, 320 prefer twisted pair path, while display device 310, 315 prefer RF link, see figure 3).

**FALVO** fails to explicitly disclose that WLAN bridge selects/determines which path to use for communication based at least in part on a bandwidth capability and based on at least part on an occupancy ratio.

As shown in figure 3, the display devices in the in home network 305 are connectable to WLAN Bridge 330 via wireless or RF link or twisted pair.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made selects the path based on the bandwidth capacity of the link or occupancy ratio of the link in order to improve the system's performance where wireless connection may be more suitable for connection for the server is currently serving multiples twisted pair connections and available for wireless connection or the server may be serving multiple wireless connections and available for wired connection.

Regarding claim 10, **FALVO** discloses communicating simultaneously between the components using both paths (the WLAN Bridge is simultaneously connectable to a

display device connected by twisted pair link and a second display device connected by RF link, see figure 3).

Regarding claim 11, **FALVO** discloses a respective address is associated with each path over which the component communicates (see paragraph 0079).

Regarding claim 12, **FALVO** discloses the addresses are IP addresses (IP address, see paragraph 0079).

Regarding claim 13, **FALVO** discloses at least one component is selected from the group of components consisting of: televisions, and portable computers (TV, computers, see paragraph 0013).

Regarding claim 14, **FALVO** discloses the component is a TV (TV, see paragraph 0013).

Regarding claim 15, **FALVO** discloses at least one of: a server, and a component, determines which path to use for communication based at least in part on a component preference (as show in figure 3, display devices are connectable to WLAN Bridge 330 via wireless or RF link or twisted pair).

Regarding claim 18, **FALVO** discloses a system for communicating between at least first and second components in a home network, comprising:

means for establishing a wired communication path between the components (802.3 10BASE-T interface, see figure 14);

means for establishing a wireless communication path between the components (RF PHY, see figure 4);

means for communicating data over a component-preferred path when a component-preferred path is indicated, the component-preferred path being selected from the wired and wireless communication paths (by default: display devices 325, 320 prefer twisted pair path, while display device 310, 315 prefer RF link, see figure 3).

**FALVO** fails to explicitly disclose that the server determining which path to use for communication based one of the component preference or bandwidth capability and the occupancy ratio.

**FALVO**, however, discloses that display devices 320, 325 are connected to WLAN 330 via twisted pair and the display devices are also support both HomeRF and 802.11b wireless protocol (see paragraph 0048).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made selects the path based on the bandwidth capacity of the link or occupancy ratio of the link in order to improve the system's performance where wireless connection may be more suitable for connection for the server is currently serving multiples twisted pair connections and available for wireless connection or the server may be serving multiple wireless connections and available for wired connection.

Regarding claim 19, **FALVO** discloses a respective address is associated with each path (IP address, see paragraph 0079).

Regarding claim 20, **FALVO** discloses wherein the addresses are IP addresses (IP address, see paragraph 0079).

Regarding claim 21, **FALVO** discloses at least one component is selected from the group of components consisting of: televisions, and portable computers (TV, computers, see figure 3 and paragraph 0013).

Regarding claim 22, **FALVO** discloses the component is a TV (see figure 3 and paragraph 0013).

Regarding claim 23, **FALVO** at least one of: a server, and a component, determines which path to use for communication based at least in part on a component preference (as show in figure 3, display devices are connectable to WLAN Bridge 330 via wireless or RF link or twisted pair and communicating based on each preferred connection).

Regarding claims 7-8, 16-17, 24-25, **FALVO** fails to explicitly disclose that WLAN bridge selects/determines which path to use for communication based at least in part on a bandwidth capability and based on at least part on an occupancy ratio.

As shown in figure 3, the display devices in the in home network 305 are connectable to WLAN Bridge 330 via wireless or RF link or twisted pair.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made selects the path based on the bandwidth capacity of the link or occupancy ratio of the link in order to improve the system's performance where wireless connection may be more suitable for connection for the server is currently serving multiples twisted pair connections and available for wireless connection or the server may be serving multiple wireless connections and available for wired connection.

#### **(10) Response to Argument**

Before responding to the applicant's argument, the examiner has made the following clarification in the above rejections. **FALVO** discloses WLAN Bridge 330 selecting the path based on component preference (by default: the prefer connection for display devices 320 and 325 are twisted pair connections and the prefer connection for display devices 310, 315 are wireless connections). And, **FALVO** fails to explicitly disclose each display device is connected to WLAN 330 via both wireless connection and wired connection at any time or the server determining which path to use for communication based one of the bandwidth capability and the occupancy ratio. Nevertheless, the reference and the ground for rejection remain intact.

**Claim 1 Sub-Heading:**

In paragraph 0048, **FALVO** discloses the following:

FIG. 3 shows a digital cable TV system 300 including an in-home network including wireless display (remote wireless) devices 310, 315 and wired display devices 320, 325 used to create reminder and intercom messages using a wireless local area network (WLAN) 330 that is bridged either to a cable modem within an STB 335 or a stand-alone cable modem (not shown) to allow access to the Internet 340. Data received from the Internet 340 is primarily routed from the cable modem in STB 335 to the display devices 310, 315, 320, 325 through the WLAN Bridge 330. The display devices 310, 315, 320, 325 support both HomeRF and 802.11b wireless protocols (emphasis added).

As cited above, **FALVO** discloses display devices 310, 315, 320, 325 supports both wired connection and wireless connection (802.11b or HomeRF wireless protocols). Also shown in figure 3, display device 320 and 325 are connected to WLAN bridge 330 via twisted pair connections and display device 310 and 315 are connected to WLAN bridge 330 via wireless connection.

Although figure 3 shows display devices 320 and 325 are connected to WLAN Bridge 330 via twisted pair connection, they are also connected to WLAN Bridge 330 via RF connection since they are close proximity to the WLAN Bridge 330 and the devices 320 and 325 are capable of wireless connection. By default, the prefer connection for display devices 320 and 325 are twisted pair connections and the prefer connection for display devices 310, 315 are wireless connections. The obvious rejection was made because **FALVO** fails to explicitly disclose each display device is connected to WLAN 330 via both wireless connection and wired connection at any time.

For the second argument, the claim clearly cited that the server determining which path to use for communication based on at least one of: a component preference,

a bandwidth capability, an occupancy ratio. In other word, the claim requires only one condition. Therefore **FALVO** discloses selecting the path based on the component preference. By default, the prefer connection for display devices 320 and 325 are twisted pair connections and the prefer connection for display devices 310, 315 are wireless connections.

#### **Claim 9 Sub-heading**

As cited above, **FALVO** discloses display devices 310, 315, 320, 325 supports both wired connection and wireless connection (802.11b or HomeRF wireless protocols). Also shown in figure 3, display device 320 and 325 are connected to WLAN bridge 330 via twisted pair connections and display device 310 and 315 are connected to WLAN bridge 330 via wireless connection. Thus, **FALVO** discloses determining that both a wired and wireless path exists between the components.

Although figure 3 shows display devices 320 and 325 are connected to WLAN Bridge 330 via twisted pair connection, they are also connected to WLAN Bridge 330 via RF connection since they are close proximity to the WLAN Bridge 330 and the devices 320 and 325 are capable of wireless connection. By default, the prefer connection for display devices 320 and 325 are twisted pair connections and the prefer connection for display devices 310, 315 are wireless connections. Thus, **FALVO** discloses communicating data over the component prefers link.

The obvious rejection was made because **FALVO** fails to explicitly disclose that the server determining which path to use for communication based one of the bandwidth capability and the occupancy ratio.

**FALVO**, however, discloses that display devices 320, 325 are connected to WLAN 330 via twisted pair and the display devices are also support both HomeRF and 802.11b wireless protocol (see paragraph 0048).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made selects the path based on the bandwidth capacity of the link or occupancy ratio of the link in order to improve the system's performance where wireless connection may be more suitable for a connection for the server is currently serving multiples twisted pair connections and available for wireless connection via RF-PHY interface or the wired connection may be more suitable for a connection for the server may be serving multiple wireless connections and available for wired connection via 802.3 10Base-T interface (see figure 4).

#### **Claim 18 Sub-heading**

The applicant's argument is already addressed in combination of claims 1 and 9 responses (see above).

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.



For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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